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Onuma

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(54) **EARTHING PLATE AND JIG FOR MOUNTING A COAXIAL CABLE THEREON**

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(51) **Int. Cl.**
H01R 4/10 (2006.01)
H01R 4/66 (2006.01)

(52) **U.S. Cl.** **439/881**; 29/753

(58) **Field of Classification Search** 439/877, 439/881, 92, 855; 29/753, 761
See application file for complete search history.

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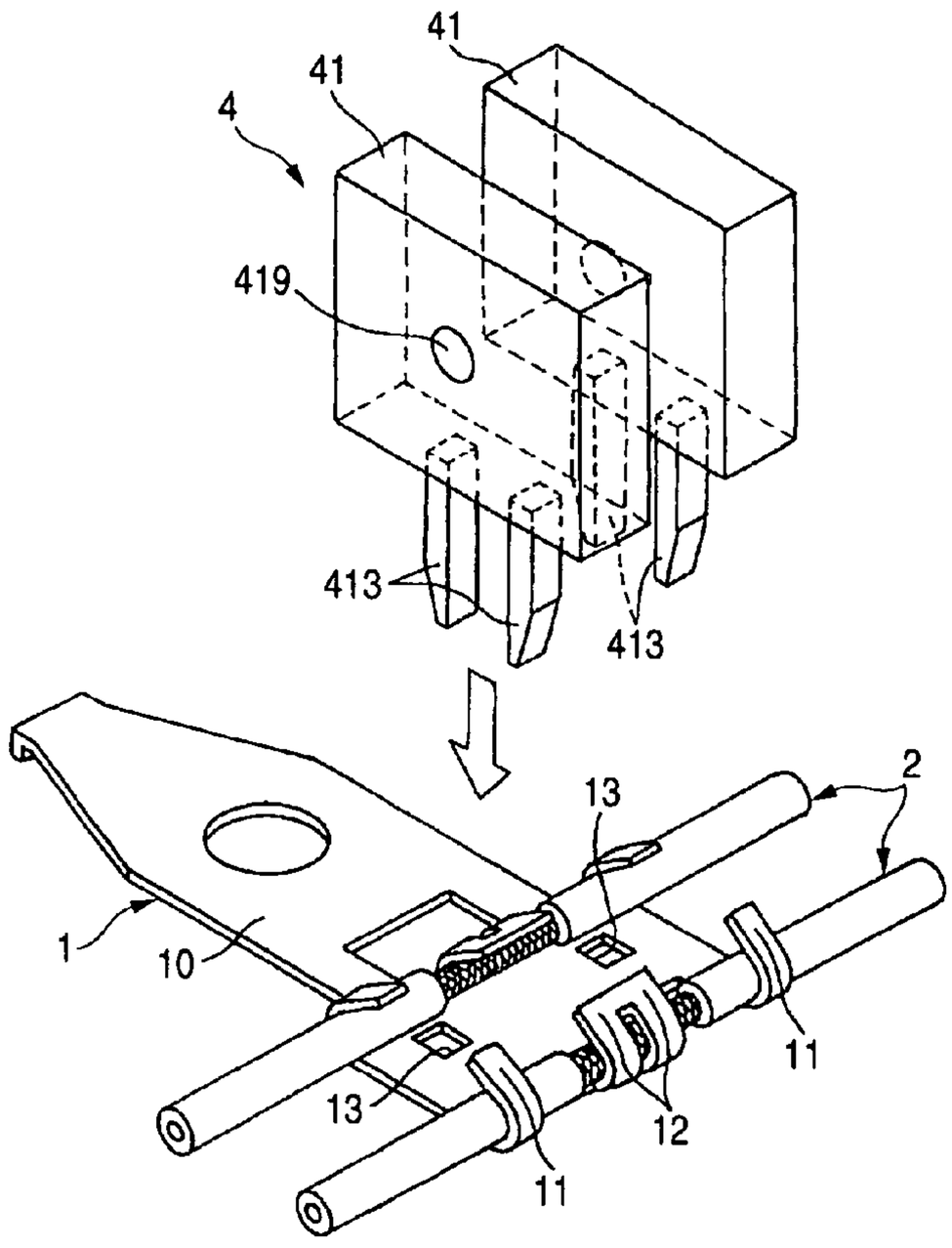
(57) **ABSTRACT**

A braiding portion and a sheath portion of a coaxial cable are positioned at predetermined locations on a fixture plate portion by making use of a positioning line formed on the fixture plate portion as a mark corresponding to a boundary between the braiding portion and the sheath portion. In addition, the sheath portion so positioned is pressed into second clamping barrels by taper portions of a jig member which are passed through holes formed in the fixture plate portion, and in association with this, the braiding portion is also pressed into a first clamping barrel.

10 Claims, 8 Drawing Sheets



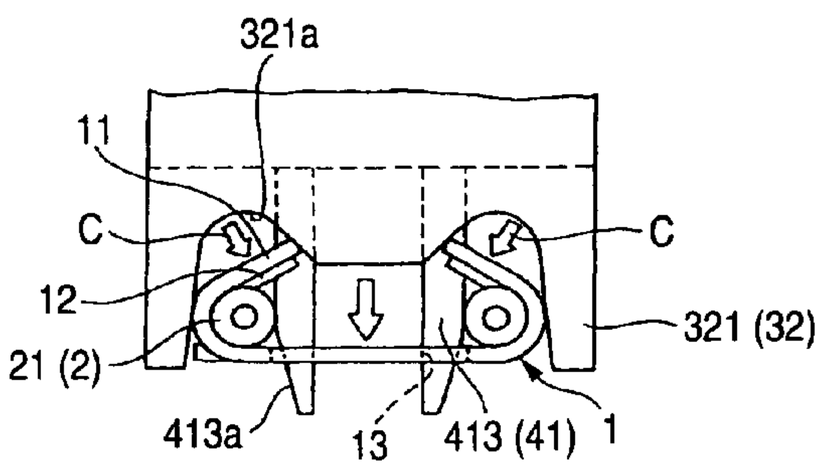
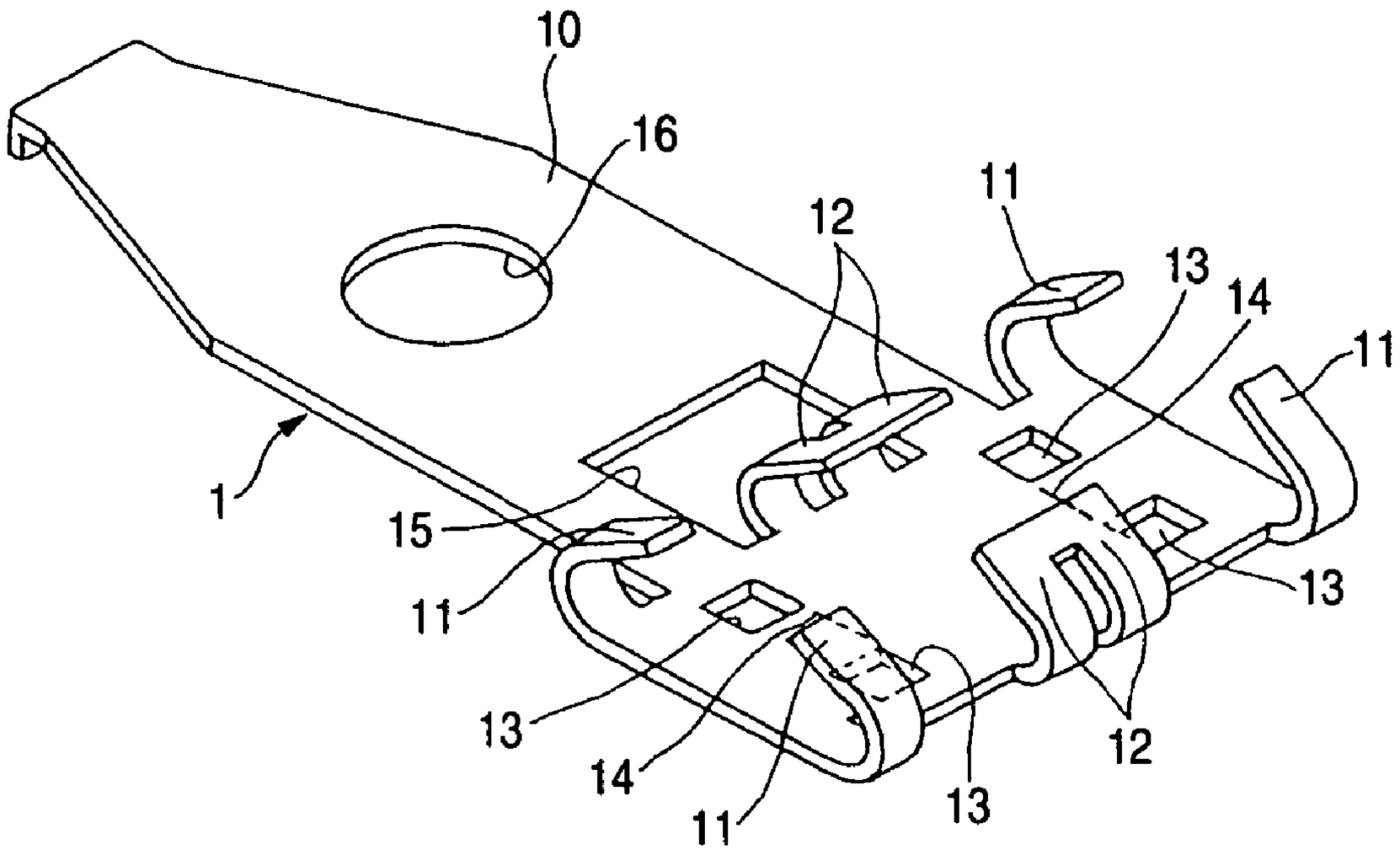


FIG. 1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12

FIG. 2

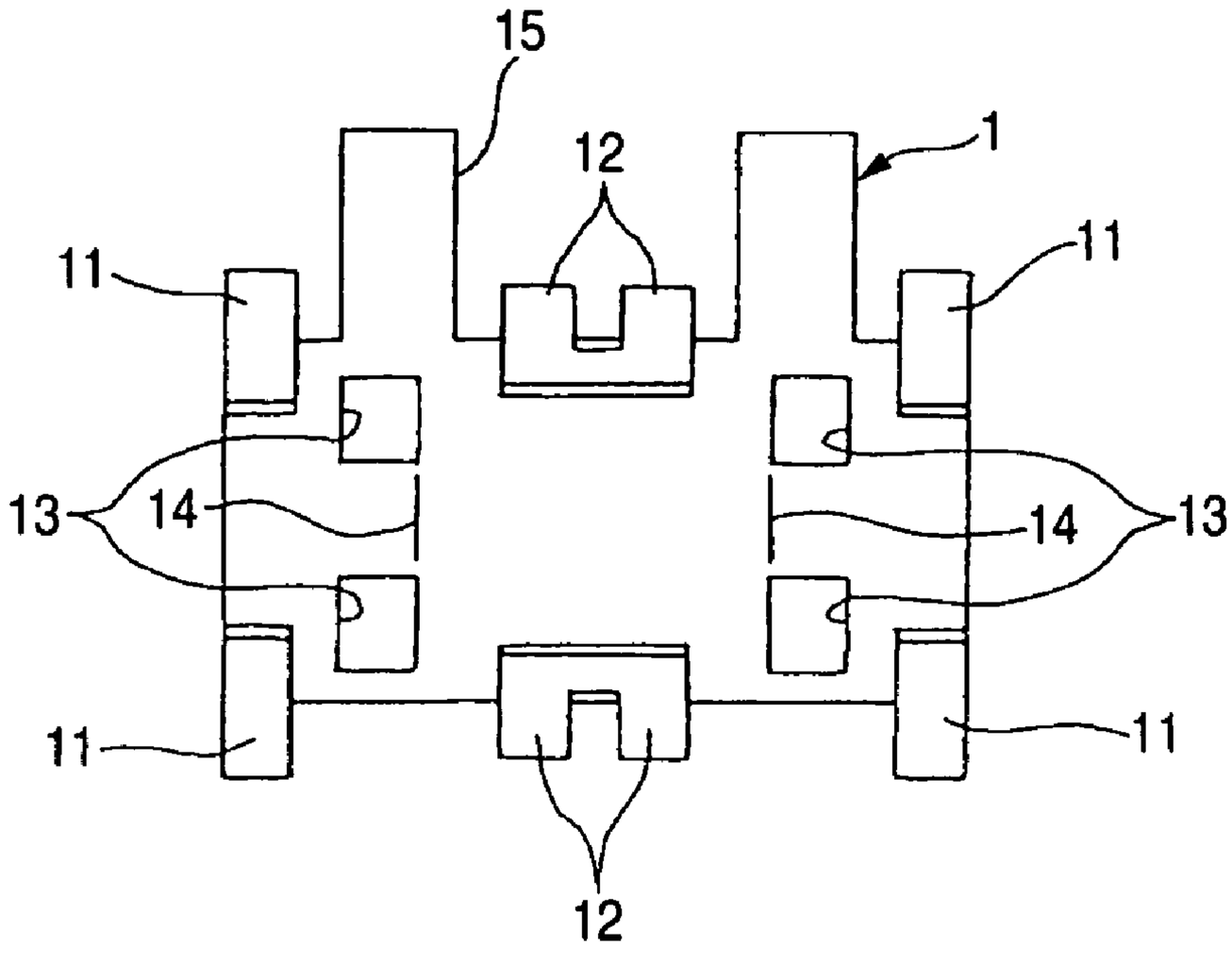
15
12
1
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FIG. 3

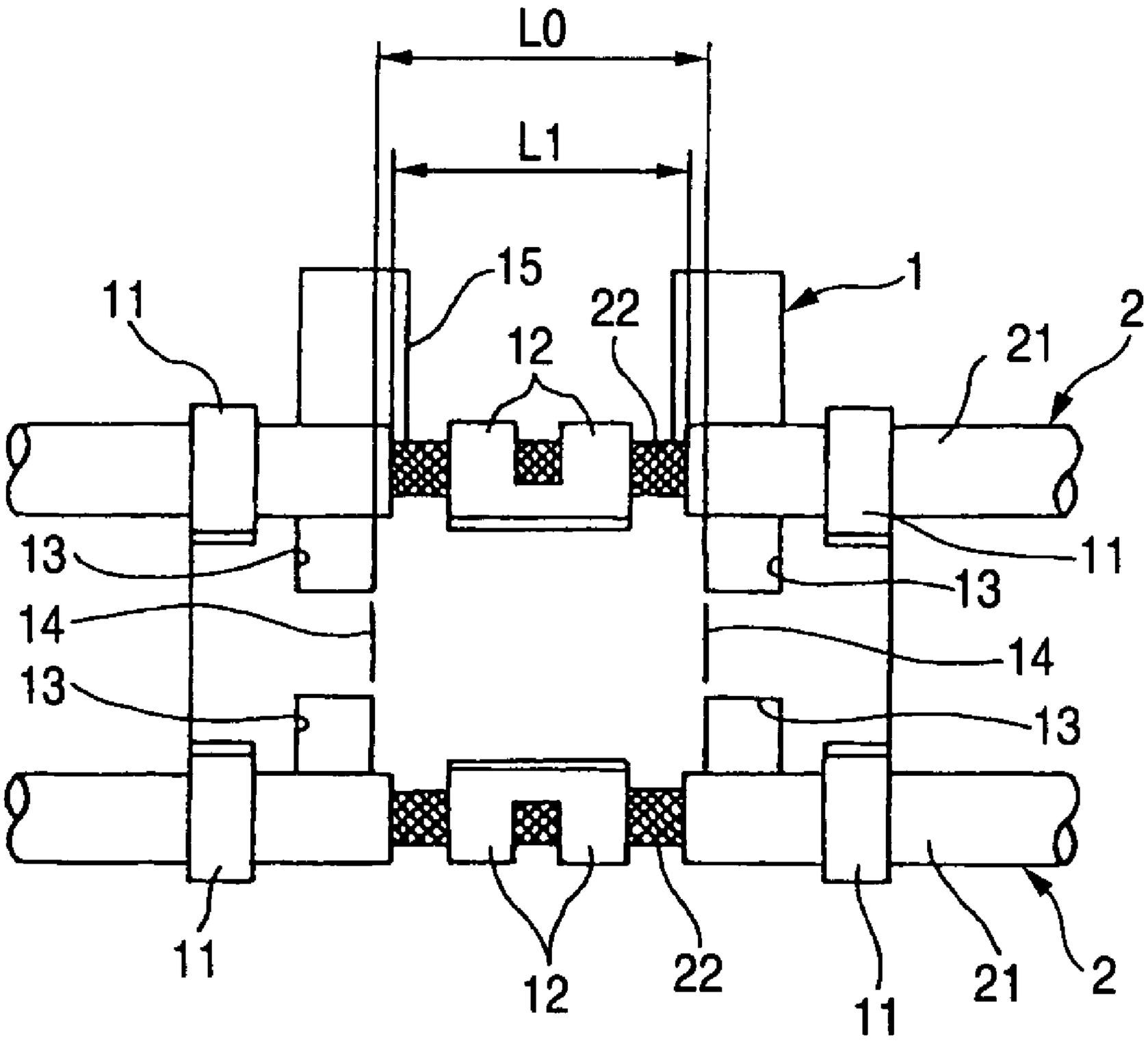


FIG. 4

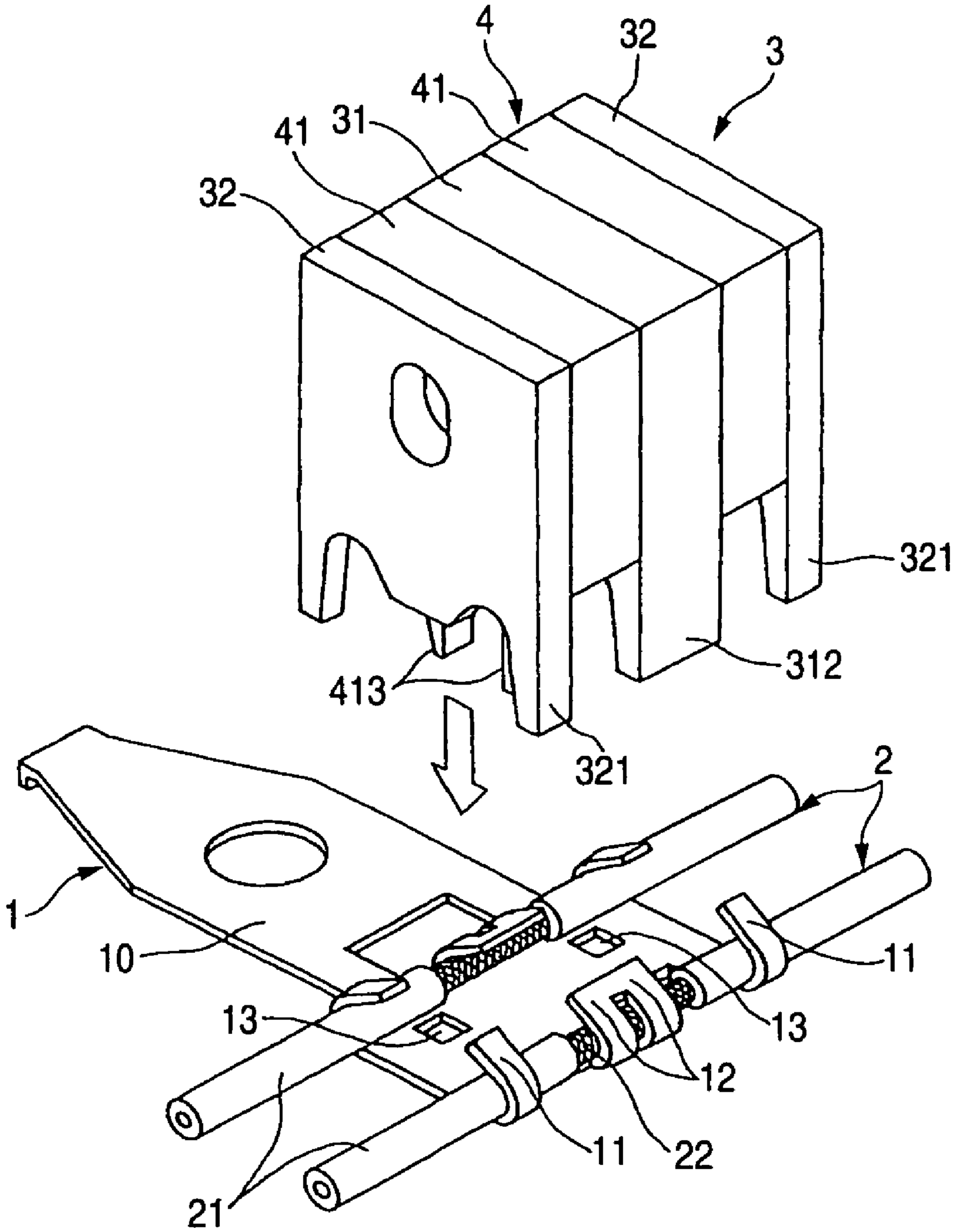


FIG. 5A

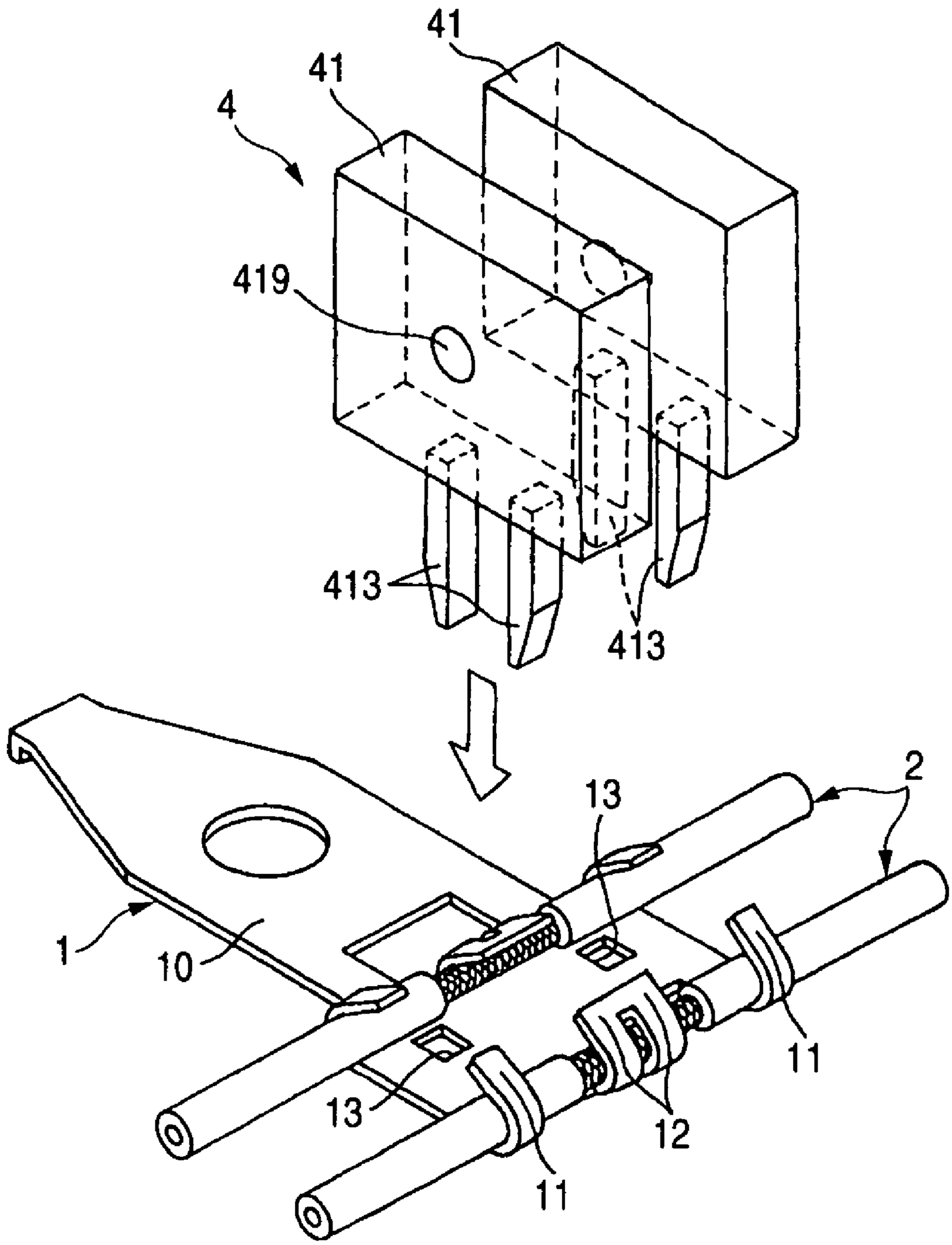


FIG. 5B

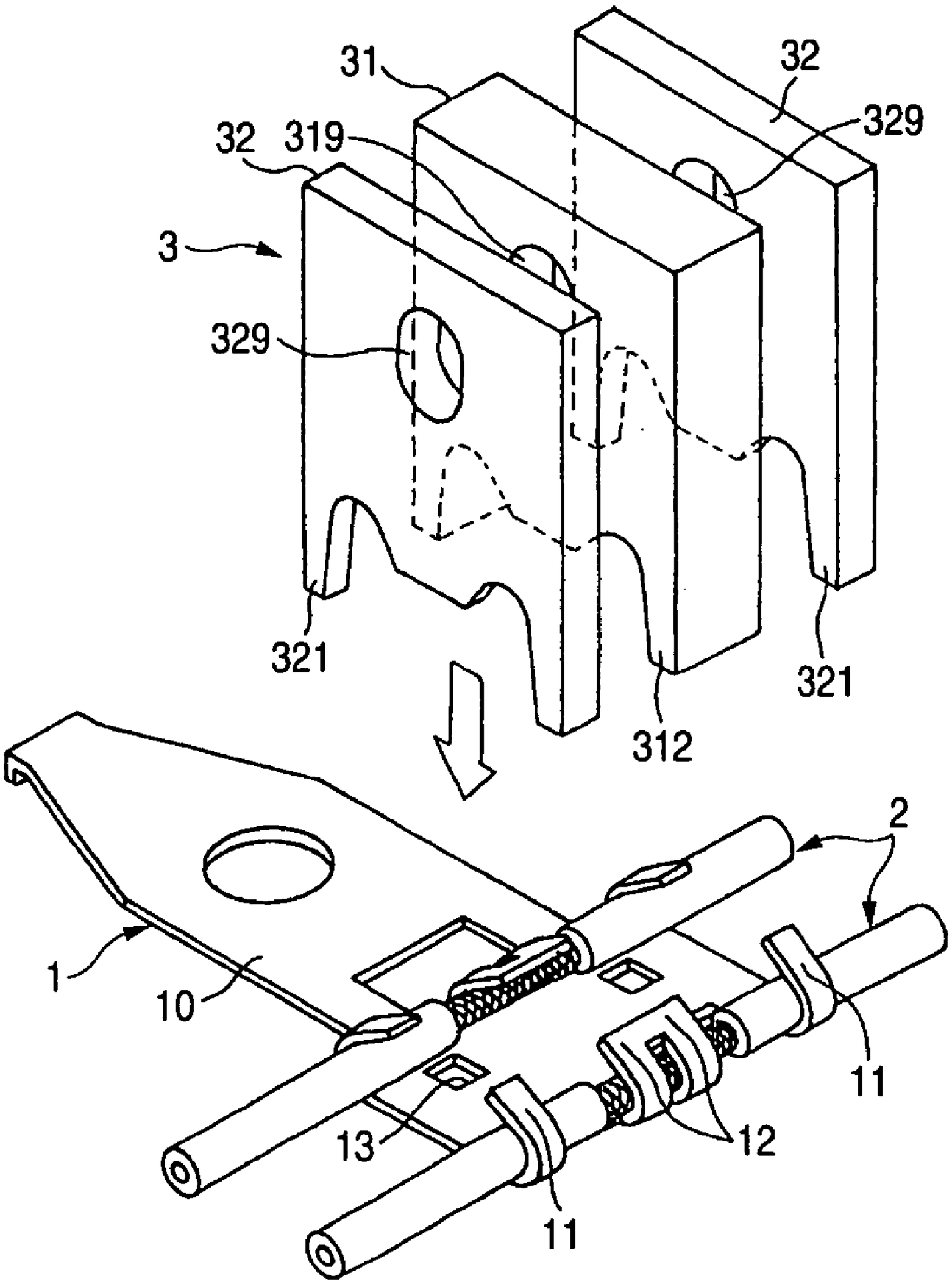


FIG. 6A

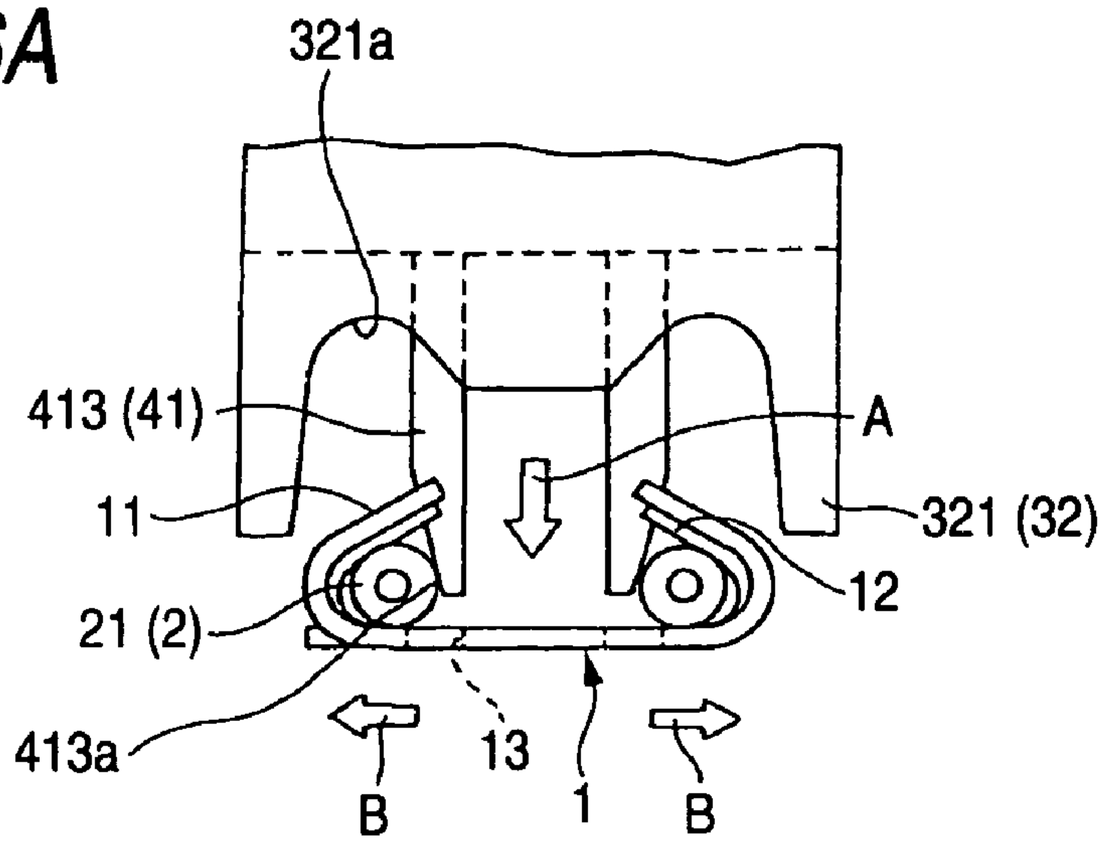


FIG. 6B

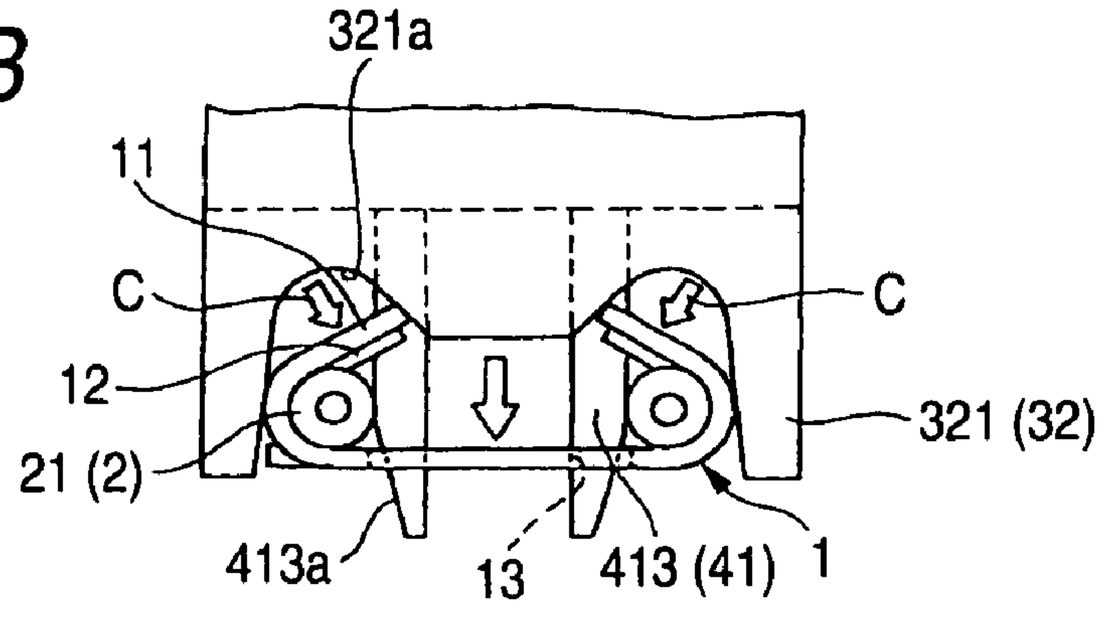


FIG. 6C

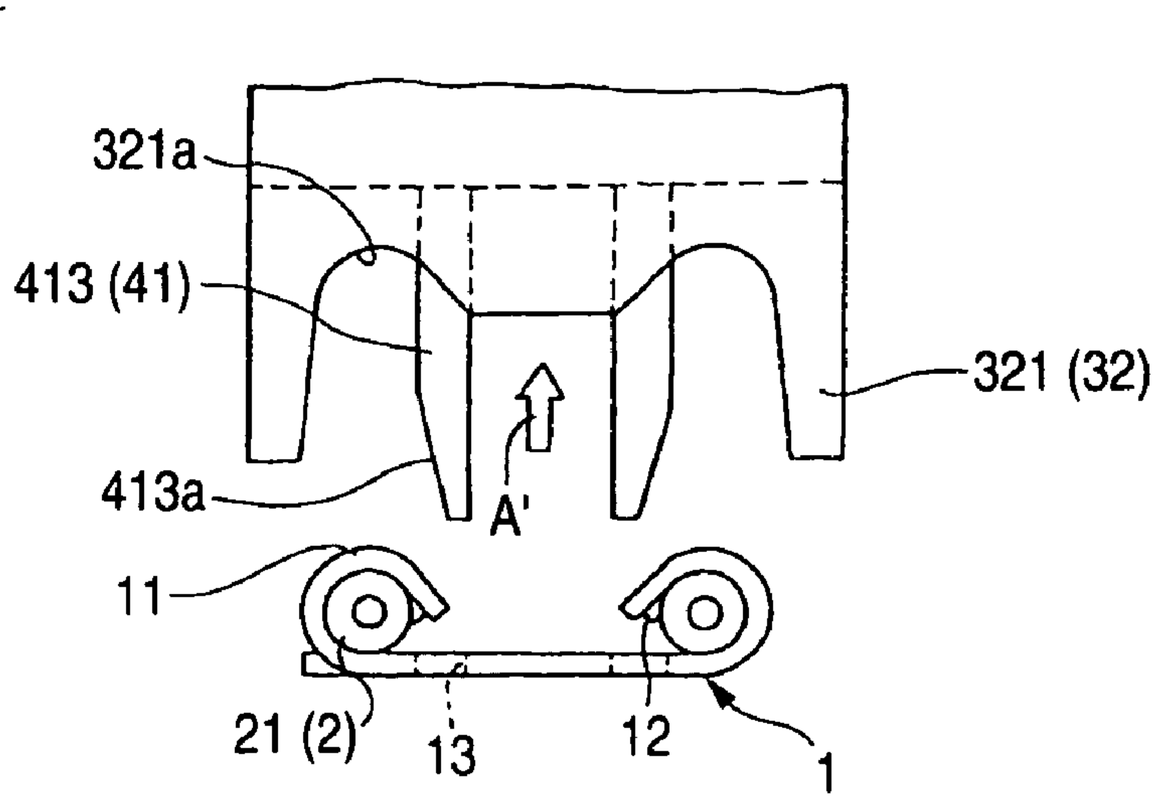


FIG. 7

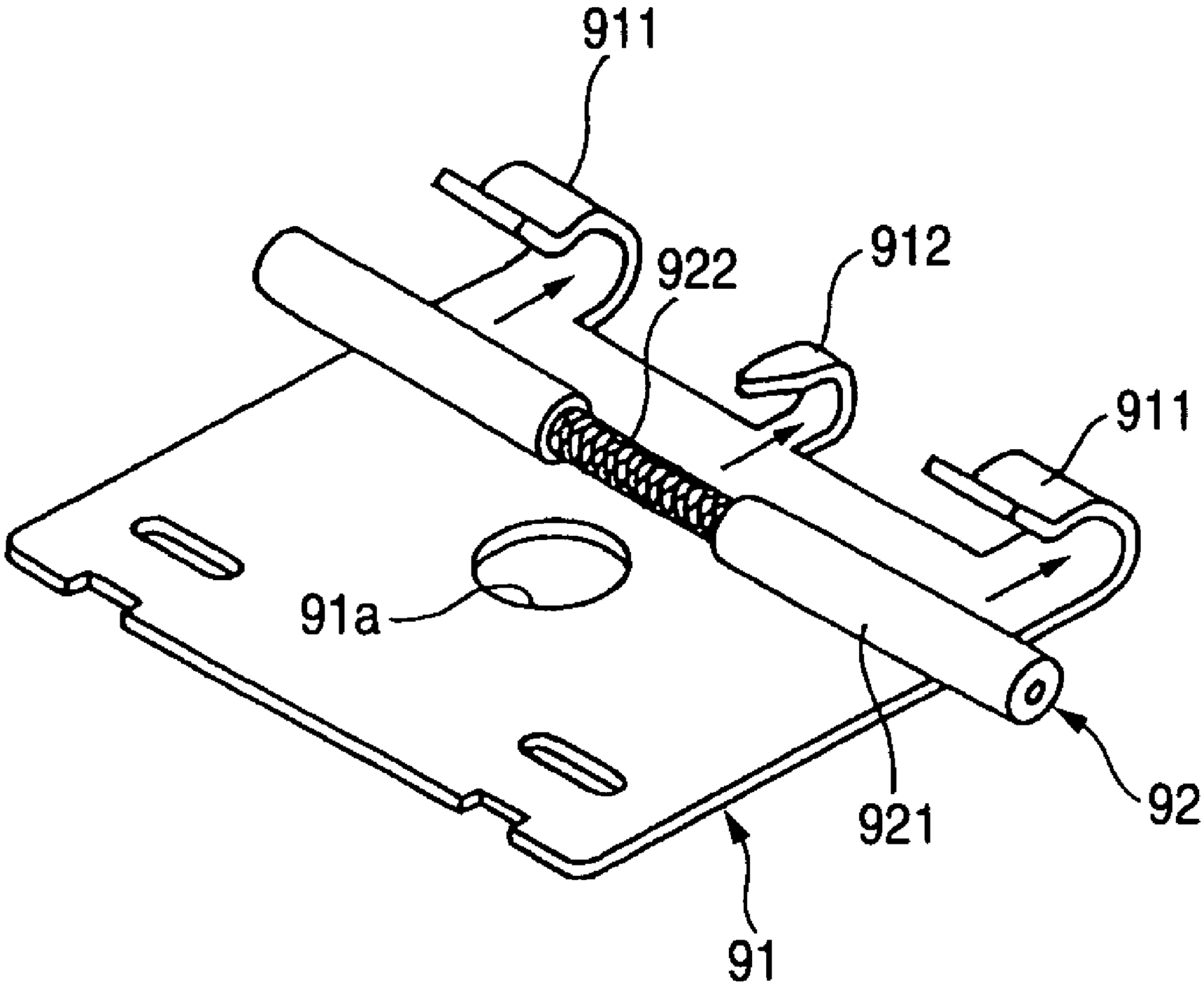


FIG. 8A

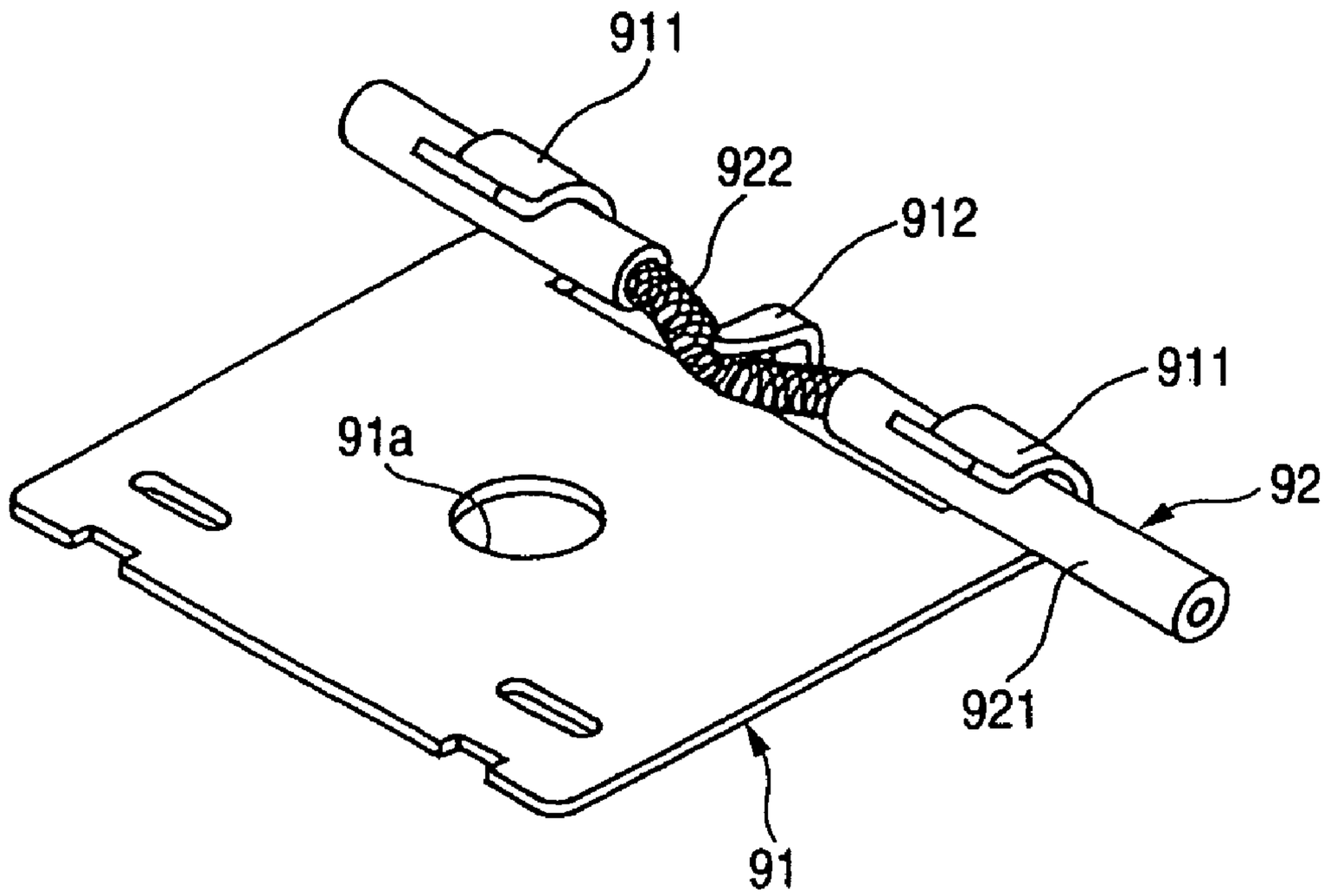
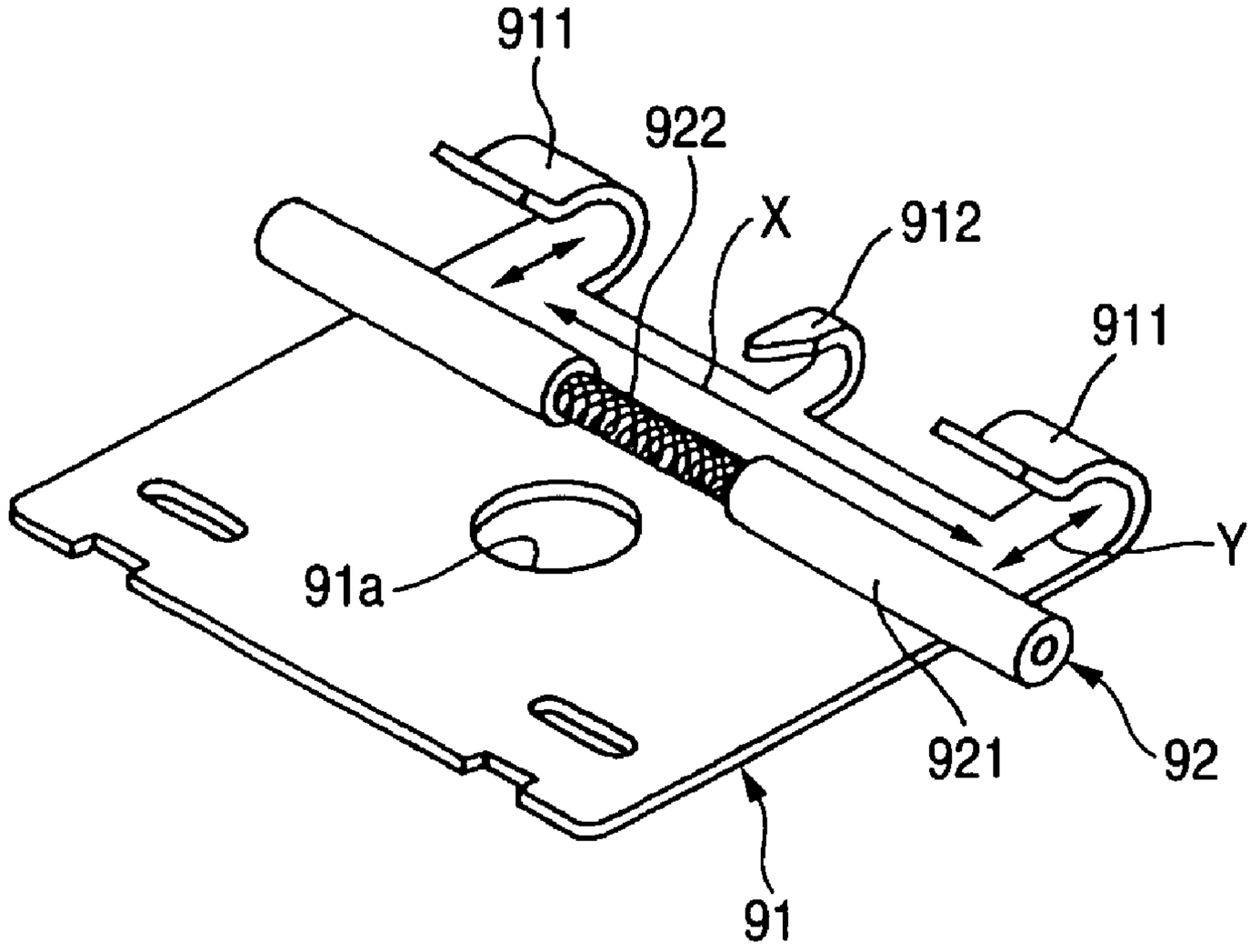


FIG. 8B



EARTHING PLATE AND JIG FOR MOUNTING A COAXIAL CABLE THEREON

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to an earthing plate and a jig for mounting a coaxial cable thereon, and more particularly to an earthing plate that is fixed to a body of an automobile or the like and a jig for mounting a coaxial cable such as an antenna cable on the earthing cable.

2. Related Art

In recent years, in many cases, a coaxial cable is connected to audio equipment installed on an automobile as an antenna cable. In order to fix the coaxial cable to the body while grounding it at an intermediate position along the length of the coaxial cable so laid out, in many cases, the coaxial cable is mounted on an electric wire fixture designated as an earthing plate. FIG. **7** is a perspective view which shows a conventional earthing plate on which a coaxial cable has not been mounted yet. FIGS. **8**A and **8**B are explanatory views which explain a problem inherent in the conventional earthing plate shown in FIG. **7**.

As shown in FIG. **7**, a conventional earthing plate **91** is formed substantially into a square conductive plate and includes two sheath portion clamping barrels **911** which extend from a front edge of the plate **91** and are turned back on themselves so as to be formed substantially into an arc-like shape and a braiding portion clamping barrel **912** which extends from the front edge at a position lying centrally between those sheath portion clamping barrels **911** and is turned back on itself so as to be formed into a U-shape. In addition, a machine screw hole **81***a* is opened at a central portion of the earthing plate **91** so that a machine screw is passed therethrough to fix the earthing plate **91** to the body.

On the other hand, a coaxial cable **92** that is to be mounted on the earthing plate **91** is made up, to describe radially outwardly from its axial center, of a core wire (not shown) which is a bundle of fine metallic wires, an insulating layer which surrounds the core wire, a braiding portion **922** provided with a layer of fine metallic wires which surrounds the insulating layer and a sheath portion **921** made of, for example, rubber which surrounds the braiding portion **922**. Then, as shown in FIG. **7**, the coaxial cable **92** is removed around the full circumference thereof at part of the sheath portion **921**, so that the braiding portion **922** thereat is exposed.

When mounting the coaxial cable **92** so configured on the earthing plate **91**, the sheath portion **921** and the braiding portion **922** are aligned, respectively, with the sheath portion clamping barrels **911** and the braiding portion clamping barrel, the respective portions of the coaxial cable **92** are then manually pressed in a direction indicated by an arrow in FIG. **7** so as to be pressed into the corresponding barrels **911**, **912**, and the sheath portions **921** and the braiding portion **922** are clamped by the respective barrels **911** and **912** using an exclusive jig or fastened through clamping, so that the coaxial cable **92** is fixed to the earthing plate **91**.

Note that there exists JP-2004-40867A as related art document information on the aforesaid conventional earthing plate.

When the three portions, the braiding portion **922** and the two sheath portions **921**, are pressed, respectively, into the barrel **912** and the two barrels **911** at the same time, however, while it is easy to press the two sheath portions **921**, which are located on sides of the braiding portion **922**, into the barrels **911**, the centrally positioned braiding portion **922** tends to be deflected as shown in FIG. **8**A.

In addition, an extent to which the sheath portion **921** and the braiding portion **922** are pressed into the barrels **911** and **912** is unclear, and due to this, in the current situations, the pressing work relies on the faculties of sensation of workers. Consequently, there sometimes occurs a case where the coaxial cable **92** is displaced in position in a direction indicated by an arrow Y in FIG. **8**B.

Furthermore, since an extent to which the setting position of the coaxial cable **92** is permitted to be displaced in a direction indicated by an arrow X in FIG. **8**B is also uncertain, there sometimes occurs a case where the setting position of the coaxial cable **92** is displaced in the direction indicated by the arrow X.

The deflection of the braiding portion **922** as shown in FIG. **8**A and the displacement of the setting position of the coaxial cable **92** in the directions indicated by the arrows X and Y in FIG. **8**B may lead to the reduction in reliability and damage to the sheath portion **921** and the braiding portion **922** by the respective barrels, and it is feared that a short-circuit will be caused in the worst case. Consequently, it is demanded that the stable product quality be secured at all times without relying on the skills and faculties of sensation of workers.

SUMMARY OF THE INVENTION

Consequently, the invention was made in view of the situations and a problem that the invention is to solve is to provide an earthing plate which enables the mounting of a coaxial cable thereon with the unchanging stable product quality without having to rely on the skills and faculties of sensation of workers and a jig for mounting a coaxial cable on the earthing plate.

With a view to solving the problem, according to a first aspect of the invention, there is provided an earthing plate comprising:

a fixture plate portion for being fixed to a mating member;

a first clamping barrel extending from an end edge of the fixture plate portion so as to securely clamp a braiding portion, which is exposed by removing a part of a sheath portion of a coaxial cable, when the braiding portion is pressed thereinto; and

a second clamping barrel extending from the end edge of the fixture plate portion so as to securely clamp the sheath portion in a vicinity of the braiding portion,

wherein the first clamping barrel and the second clamping barrel are clamped to hold the coaxial cable after the braiding portion and the sheath portion are pressed into the first clamping barrel and the second clamping barrel, respectively, and

a hole for inserting a tapered jig member is formed on the fixture plate portion whereby the jig member is to be brought into press contact with the sheath portion to enter the sheath portion into the second clamping barrel, so that the braiding portion is pressed into the first clamping barrel.

According to the first aspect of the invention, the sheath portion, which is positioned, is pressed into the second clamping barrels by the taper portions which are passed through the holes formed in the fixture plate portion, and as a result of this, the braiding portion is also pressed into the first clamping barrel. Thus, since the holes are provided through which the taper portions of the jig member which are adapted to press the sheath portion into the second clamping barrels, it is possible to press the sheath portion

into the second clamping barrels, as well as pressing the braiding portion into the braiding portion clamping barrel in an accurate manner using the jig member.

According to a second aspect of the invention, the earthing plate according to the invention may further include a positioning line formed on the fixture plate as a mark which corresponds to a boundary between the braiding portion and the sheath portion in order to accurately position the braiding portion and the sheath portion at predetermined locations on the fixture plate before the braiding portion and the sheath portion are pressed into the first clamping barrel and the second clamping barrel, respectively.

According to the second aspect of the invention, the braiding portion and the sheath portion are positioned at the predetermined locations on the fixture plate portion by making use of the positioning line formed on the fixture plate portion as the mark which corresponds to the boundary between the braiding portion and the sheath portion of the coaxial cable. Thus, the accurate longitudinal position of the coaxial cable, in particular, the accurate positioning of the braiding portion can be facilitated by making use of the positioning line. Furthermore, the deflection of the braiding portion can be suppressed to a minimum level by the accurate positioning and pressing in of the braiding portion.

According to a third aspect of the invention, in order to mount two of the coaxial cables in parallel at a predetermined interval on the fixture plate portion, it is preferable that a group of the first clamping barrel, the second clamping barrel and the hole, and another group of the first clamping barrel, the second clamping barrel and the hole are symmetrically formed on the fixture plate portion.

According to the third aspect of the invention, the group of the first clamping barrel, the second clamping barrel and the hole and the other group of the first clamping barrel, the second clamping barrel and the hole are symmetrically formed on the fixture plate portion. Consequently, the sheath portions of the two coaxial cables can be pressed, respectively, into the corresponding second clamping barrels at the same time, and the braiding portions thereof can also be pressed, respectively, into the corresponding first clamping barrels.

According to a fourth aspect of the invention that was made with a view to solving the problem, there is provided an earthing plate according to any of the first to third aspects of the invention, wherein two of the positioning lines are formed on the fixture plate so as to be substantially in parallel with the boundary, and wherein an interval between these two positioning lines is made longer than the length of the exposed braiding portion.

According to the fourth aspect of the invention, the two positioning lines are formed on the fixture plate portion so as to be substantially in parallel with the boundary, and the interval between these two positioning lines is made longer than the length of the exposed braiding portion. Consequently, the coaxial cable can be accurately positioned only by positioning the braiding portion so as to be accommodated between the two positioning lines.

According to a fifth aspect of the invention, there is provided a jig for mounting a coaxial cable on the earthing plate according to the invention, including:

a pressing jig member having a taper portion adapted to be brought into contact with the sheath portion and passed through the hole so as to gradually press the sheath portion into a deep part of the second clamping barrel when the taper portion proceeds further through the hole; and

a crimping jig member adapted to be brought into contact with the first clamping barrel and the second clamping barrel so as to clamp the braiding portion and the sheath portion by gradually clamping the braiding portion and the sheath portion with the first clamping barrel and the second clamping barrel as advancing in the same direction as the taper portion.

According to the fifth aspect of the invention, the taper portions provided on the pressing jig member so as to protrude therefrom are passed through the holes in the fixture plate portion, and the sheath portion of the coaxial cable is gradually pressed into deep parts of the curled portions of the second clamping barrels by the taper portions as the passage of the taper portions through the holes proceeds further. In association with this, the braiding portion of the coaxial cable is also gradually pressed into a deep part of the curled portion of the first clamping barrel. In addition, as the crimping jig member advances in the same direction as the taper portions, the braiding portion and the sheath portion of the coaxial cable are gradually clamped by the first clamping barrel and the second clamping barrels, respectively, whereby the braiding portion and the sheath portion are clamped.

According to the first aspect of the invention, the sheath portion is pressed into the second clamping barrels by the taper portions which are passed through the holes formed in the fixture plate portion, and as a result of this, the braiding portion is also pressed into the first clamping barrel. Thus, since the holes are provided through which the taper portions of the jig member which are adapted to press the sheath portion into the second clamping barrels, it is possible to press the sheath portion into the second clamping barrels, as well as pressing the braiding portion into the first clamping barrel in an accurate manner using the jig member. Consequently, the coaxial cable can be mounted on the fixture plate portion with the stable product quality without having to rely on the skills and faculties of sensation of the workers.

According to the second aspect of the invention, the braiding portion and the sheath portion are positioned at the predetermined locations on the fixture plate portion by making use of the positioning line formed on the fixture plate portion as the mark which corresponds to the boundary between the braiding portion and the sheath portion of the coaxial cable. Thus, the accurate longitudinal position of the coaxial cable, in particular, the accurate positioning of the braiding portion can be facilitated by making use of the positioning line. Furthermore, the deflection of the braiding portion can be suppressed to a minimum level by the accurate positioning and pressing in of the braiding portion. Consequently, the coaxial cable can be mounted on the fixture plate portion with the unchanging stable product quality without having to rely on the skills and faculties of sensation of the workers.

According to the third aspect of the invention, the group of the first clamping barrel, the second clamping barrel and the hole and the other group of the first clamping barrel, the second clamping barrel and the hole are symmetrically formed on the fixture plate portion. Consequently, the sheath portions of the two coaxial cables can be pressed, respectively, into the corresponding second clamping barrels at the same time, and the braiding portions thereof can also be pressed, respectively, into the corresponding first clamping barrels. Consequently, the coaxial cable can be mounted on the fixture plate portion with the stable product quality without having to rely on the skills and faculties of sensation of the workers.

According to the fourth aspect of the invention, the two positioning lines are formed on the fixture plate portion so as to be substantially in parallel with the boundary, and the

interval between these two positioning lines is made longer than the length of the exposed braiding portion. Consequently, the coaxial cable can be accurately positioned only by positioning the braiding portion so as to be accommodated between the two positioning lines. Consequently, the coaxial cable can be mounted on the fixture plate portion with the unchanging stable product quality without having to rely on the skills and faculties of sensation of the workers.

According to the fifth aspect of the invention, the taper portions provided on the pressing jig member so as to protrude therefrom are passed through the holes in the fixture plate portion, and the sheath portion of the coaxial cable is gradually pressed into deep parts of the curled portions of the second clamping barrels by the taper portions as the passage of the taper portions through the holes proceeds further. In association with this, the braiding portion of the coaxial cable is also gradually pressed into a deep part of the curled portion of the first clamping barrel. In addition, as the crimping jig member advances in the same direction as the taper portions, the braiding portion and the sheath portion of the coaxial cable are gradually clamped by the first clamping barrel and the second clamping barrels, respectively, whereby the braiding portion and the sheath portion are clamped. Consequently, the coaxial cable can be mounted on the fixture plate portion with the unchanging stable product quality without having to rely on the skills and faculties of sensation of the workers.

According to another aspect of the invention, the first clamping barrel may be formed by curling a first tongue piece extending from the end edge of the fixture plate portion.

According to another aspect of the invention, the second clamping barrel may be formed by curling a second tongue piece extending from the end edge of the fixture plate portion.

According to another aspect of the invention, the hole for inserting a tapered jig member may be located preferably between the first clamping barrel and the second clamping barrel in a longitudinal direction of the coaxial cable.

According to another aspect of the invention, it is preferable that a pair of the second clamping barrel are formed on opposite sides of the first clamping barrel in a longitudinal direction of the coaxial cable.

According to another aspect of the invention, it is preferable that a pair of holes for inserting a tapered jig member are formed on opposite sides of the first clamping barrel between the first clamping barrel and the second clamping barrels, respectively.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a perspective view which shows an earthing plate according to an embodiment of the invention;

FIG. **2** is a top plan view of a main part of the earthing plate in FIG. **1**;

FIG. **3** is a top plan view of the main part of the earthing plate in FIG. **2**;

FIG. **4** is a perspective view which shows a jig according to the embodiment of the invention;

FIGS. **5**A and **5**B are perspective views which show, respectively, a pressing jig member and a crimping jig member of the jig shown in FIG. **4**;

FIGS. **6**A to **6**C are explanatory views which explain the function of the jig of the embodiment of the invention when mounting coaxial cables on the earthing plate;

FIG. **7** is a perspective view which shows a conventional earthing plate; and

FIGS. **8**A and **8**B are explanatory views which explain a problem inherent in the conventional earthing plate shown in FIG. **7**.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Hereinafter, an embodiment of the invention will be described based on the drawings.

Firstly, using FIGS. **1** to **3**, an earthing plate of an embodiment of the invention will be described. FIG. **1** is a perspective view which shows an earthing plate of an embodiment of the invention. FIG. **2** is a top plan view of a main part of the earthing plate shown in FIG. **1**. FIG. **3** is a top plan view of the earthing plate shown in FIG. **2** with coaxial cables set thereon.

An earthing plate **1** of the embodiment of the invention shown in FIGS. **1** to **3** is a metallic fixture for fixing coaxial cables **2** to audio equipment installed, for example, on an automobile as antenna cables to a body of the automobile while grounding them at intermediate locations along the lengths of the coaxial cables **2** so laid out. The earthing plate **1** is made of a sheet metal having superior conductivity and is eventually formed into a shape shown in FIGS. **1** to **3** through pressing and bending processes.

As shown in FIGS. **1** to **3**, the earthing plate **1** is basically configured so as to have a fixture plate portion **10**, braiding portion clamping barrels (first clamping barrels) **12** and sheath portion clamping barrels (second clamping barrel) **11**. In particular, this earthing plate **1** is such as to cope with two coaxial cables **2**, and a group of the braiding portion clamping barrel **12** and the two sheath portion clamping barrels **11** and another similar group of the braiding portion clamping barrel **12** and the two sheath portion clamping barrels **11** are symmetrically formed. In addition, after the braiding portions **22** and the sheath portions **21** of the two coaxial cables **2** are pressed, respectively, into the corresponding braiding portion clamping barrels **12** and the sheath portion clamping barrels **11**, the braiding portion clamping barrels **12** and the sheath portion clamping barrels **11** are crimped so as to hole the two coaxial cables **2**.

The fixture plate portion **10** is a flat portion where the earthing plate **1** is fixed to a mating member and has a circular machine screw hole **16** through which a machine screw (not shown) is passed through to fix the earthing plate **1** to the mating member and four quadrangular holes **13** through which taper portions of a jig, which will be described later on, are passed through. Note that a quadrangular hole **15** possessed by the fixture plate portion **10** are formed as a result of the formation of the braiding portion clamping barrel **12**. A pair of the sheath portion clamping barrels **11** are formed on opposite sides of the braiding portion clamping barrel **12** in a longitudinal direction of the coaxial cable **2**. A pair of holes **13** for inserting the tapered portions of the jig are formed on opposite sides of the braiding portion clamping barrel **12** so as to be located between the braiding portion clamping barrel **12** and the pair of the sheath portion clamping barrels **11**, respectively.

Additionally, two positioning lines **14** are stamped on the fixture plate portion **10**. The positioning lines **14** are such as to accurately position the braiding portions **22** and the sheath portions **21** of the coaxial cables **2** at predetermined locations on the fixture plate portion **10** before the braiding portions **22** and the sheath portions **21** are pressed into the corresponding the braiding portion clamping barrels **12** and the sheath portion clamping barrels **11** and are stamped as marks which correspond to boundaries between the braiding

portion **22** and the sheath portion **21**. To describe specifically, those two positioning lines **14** are stamped on the fixture plate portion **10** so as to be in parallel with the boundaries between the braiding portion **22** and the sheath portion **21**. Then, as shown in FIG. **3**, an interval L**0** between the two positioning lines is made longer than an exposed length L**1** of the braiding portion **22**, whereby the coaxial cables **2** can accurately be positioned only by aligning the coaxial cables **2** so as to be accommodated between the two positioning lines **14**. Note that the positioning lines **14** may be formed not only by stamping but also by other methods such as printing.

The sheath portion clamping barrels **11** are portions where the sheath portions **21** of the coaxial cable **2**, which lie on both sides of the exposed braiding portion **22**, are pressed to thereby be clamped. The sheath portion clamping barrels **11** are formed by curling a pair of tongue pieces extending from an end edge of the fixture plate portion **10** at positions corresponding to the sides of the braiding portion clamping barrel **12** to be turned back on themselves to thereby be formed into a U-shape.

The braiding portion clamping barrel **12** is a portion where the braiding portion **22**, which is exposed by removing the sheath portion **21** at the relevant portion of the coaxial cable **2**, is pressed to thereby be clamped. The braiding portion clamping barrel **12** is formed by curling a tongue piece extending from the end edge of the fixture plate portion **10** as a position corresponding to a central portion of the pair of sheath portion clamping barrels **11** to be turned back on itself so as to be formed into a U-shape. Note that while the braiding portion clamping barrel **12** is longer in longitudinal length than the sheath portion clamping barrel **11**, in order to facilitate the clamping thereof, a slit is provided at a central portion thereof.

Additionally, the coaxial cable **2**, which is to be mounted on the earthing plate **1**, is made up, to describe radially outwardly from its axial center, of a core wire (not shown) which is a bundle of fine metallic wires, an insulating layer which surrounds the core wire, the braiding portion **22** provided with a layer of fine metallic wires which surrounds the insulating layer and the sheath portion **21** made of, for example, rubber which surrounds the braiding portion **22**. Then, as shown in FIG. **3**, the coaxial cable **2** is removed around the full circumference thereof at part of the sheath portion **21**, so that the braiding portion **22** thereat is exposed.

Next, using FIGS. **4**, **5**A and **5**B, a jig for mounting the coaxial cables **2** on the earthing plate **1** will be described. FIG. **4** is a perspective view which shows a jig according to the embodiment of the invention. FIGS. **5**A and **5**B are perspective views which show, respectively, a pressing jig member and a crimping jig member of the jig shown in FIG. **4**.

As shown in FIG. **4**, a jig according to the embodiment is provided with a pressing jig member **4** and a crimping jig member **3** which are integrated thereinto. The pressing jig member **4** is, as shown in FIG. **5**A, provided with two pressing jig members **41**, **41** which are formed into the same shape, and the pressing jig members **41**, **41** each have legs **413** which are provided on a base portion of a rectangular parallelepiped so as to project therefrom to form a U-shape together. Taper portions **413***a* (refer to FIGS. **6**A, **6**B and **6**C) are formed on outside portions of the U-shape forming leg portions **413** so as to be brought into contact with the coaxial cables **2**. The taper portions **413***a* are formed so as to facilitate the pressing of the coaxial cables **2** into deep parts of curled portions of the respective barrels as the U-shape forming leg portions **413** advance in a direction indicated an arrow in FIG. **5**A. A circular shaft hole **419** is also formed in the base portion. Since two of the pressing jig members **41** are included in the jig of the embodiment, the jig is to have four taper portions **413***a*.

On the other hand, the crimping jig member **3** is, as shown in FIG. **5**B, provided with a crimping jig member **31** which corresponds to the braiding portion clamping barrels **12** and two crimping jig members **32** which correspond, respectively, to the sheath portion clamping barrels **11** which lie on both sides of the braiding portion clamping barrels **12**. The crimping jig member **31** has two leg portions **312** which are provided on a base portion of a rectangular parallelepiped in which an elliptic shaft hole **319** is formed so as to project therefrom. The two crimping jig members **32** are formed into the same shape and each have two leg portions **321** which are provided on a base portion of a rectangular parallelepiped in which an elliptic shaft hole **329** is formed so as to project therefrom. The leg portions **312** and the leg portions **321** are each curved on an inside thereof in order to facilitate the clamping of the braiding portion clamping barrels **12** and the sheath portion clamping barrels **11** as the leg portions **312** and the leg portions **321** advance in a direction indicated by an arrow in FIG. **5**B.

The pressing jig members **41** and the crimping jig members **31**, **32**, which are configured as described above, are integrated together so as to make up the jig for mounting the coaxial cables **2** on the earthing plate **1**. To describe specifically, as shown in FIG. **4**, the crimping jig member **31** is disposed centrally, and the other two crimping jig members **32** are disposed so that each of the two pressing jig members **41** is held between the centrally disposed crimping jig member **31** and themselves, whereby the single jig is constructed. The crimping jig members **31** and **32** are disposed so as to correspond to the braiding portion clamping barrels **12** and the sheath portion clamping barrels **11**. In addition, when the jig is displaced in the direction indicated by the arrow in FIG. **4**, the coaxial cables **2** are clamped simultaneously by the respective barrels **11**, **12** while transverse (the direction Y in FIG. **8**B) positional deviations of the coaxial cables **2** are corrected.

Next, additionally referring to FIGS. **6**A to **6**C, the function of the aforesaid positional deviation correction and clamping of the coaxial cables will be described below. FIGS. **6**A to **6**C are explanatory views which explain the function of the jig according to the embodiment of the invention when the coaxial cables are mounted.

Before the jig is used, firstly, as shown in FIG. **3**, the coaxial cables **2** are disposed on the earthing plate **1** so that the braiding portions **22** thereof are accommodated between the two positioning lines **14**.

Next, as shown in FIG. **6**A, with the pressing jig members **41** and the crimping jig members **31**, **32** integrated together, the U-shape forming leg portions **413** of the pressing jig members **41** are inserted into the holes **13** in the earthing plate **1**, and the jig is lowered in a direction indicated by an arrow A in the figure. Then, the taper portions **413***a* of the pressing jig members **41** catch the sheath portions **21** of the coaxial cables **2**, whereby the sheath portions **21** are pressed out in directions indicated by arrows B in the same figure. As a result, the sheath portions **21** are pressed into the deep parts of the curled portions of the sheath portion clamping barrels **11**, and in association with this, the braiding portions **22** are also pressed into the deep parts of the curled portions of the braiding portion clamping barrels **12**. Namely, as shown in FIG. **6**B, the whole coaxial cables **2** are pressed into the respective barrels **11**, **12**. As this occurs, the U-shape forming leg portions **413** of the pressing jig members **41**

have passed through the holes **13**, whereby the transverse (the direction Y in FIG. **8**B) positional deviations of the coaxial cables **2** are automatically and accurately corrected.

Next, as shown in FIG. **6**B, with the state maintained in which the U-shape forming leg portions **413** are in contact with the coaxial cables **2**, whereby the coaxial cables **2** are corrected in position, the crimping jig members **32** (**31**) are lowered in the direction indicated by the arrow A in the figure, so that the respective leg portions **321** (**312**) of the crimping jig members **32** (**31**) are brought into contact with the sheath portion clamping barrels **11** and the braiding portion clamping barrels **12**, whereby the sheath portion clamping barrels **11** and the braiding portion clamping barrels **12** are crimped at the same time, the coaxial cables **2** being thereby clamped.

Then, as shown in FIG. **6**C, the pressing jig members **41** and the crimping jig members **32** (**31**) are raised in a direction indicated by an arrow A' in the figure, whereupon a stroke of motion of the jig completes. The transverse positional deviations of the coaxial cables **2** are accurately corrected at all times by the stoke of motion of the jig without having to rely on the faculty of sensation of the worker, and the clamping of the respective barrels **11**, **12** is implemented at the same time.

Note that while the two coaxial cables **2** are described as being clamped in the embodiment, only a single coaxial cable **2** may be clamped on the earthing plate **1**. In this case, the blank barrels disposed on the side where no coaxial cable **2** is allocated may only have to be so crimped with no coaxial cable held therein.

As has been described heretofore, according to the embodiment of the invention, the braiding portions **22** and the sheath portions **21** of the coaxial cables **2** are positioned at the predetermined locations on the fixture plate by making use of the positioning lines **14** formed on the fixture plate portion **10**. Then, the sheath portions **21** are pressed into the sheath portion clamping barrels **11** by the taper portions **413***a* of the jig members which are passed through the holes **13** formed in the fixture plate portion **10**, and in association with this, the braiding portions **22** are also pressed into the braiding portion clamping barrels **12**. At the same time, the braiding portions **22** and the sheath portions **21** of the coaxial cables **2** are gradually clamped by the respective barrels, and eventually, the braiding portions **22** and the sheath portions **21** are clamped to the earthing plate **1**. In addition, in association with the accurate positioning and pressing, the deflection of the braiding portions **22** can be suppressed to a minimum level. Consequently, the coaxial cables **2** can be mounted on the fixture plate portion **10** with the unchanging stable product quality, without having to rely on the skills and faculties of sensation of the workers. In association with this, it is possible to avoid the trapping of the sheath portion **21** by the barrel due to the longitudinal positional deviation of the coaxial cable **2** and the ripping of the sheath portion **21** by the distal end of the barrel at the time of clamping due to the transverse positional deviation of the coaxial cable **2**, thereby making it possible to avoid a short-circuit with an internal conductor.

Note that while the earthing plate of the embodiment is such as to cope with the two coaxial cables **2**, the earthing plate can easily be altered to an earthing plate which copes with a single coaxial cable **2**. In addition, while the taper portions and the holes through which the taper portions are passed are quadrangular in the embodiment, other shapes, for example, a triangular shape can be adopted instead. The invention includes these slightly altered forms.

What is claimed is:

1. An earthing plate comprising:

a fixture plate portion for being fixed to a mating member;

a first clamping barrel extending from an end edge of the fixture plate portion so as to securely clamp a braiding portion, which is exposed by removing a part of a sheath portion of a coaxial cable, when the braiding portion is pressed thereinto; and

a second clamping barrel extending from the end edge of the fixture plate portion so as to securely clamp the sheath portion in a vicinity of the braiding portion,

wherein the first clamping barrel and the second clamping barrel are clamped to hold the coaxial cable after the braiding portion and the sheath portion are pressed into the first clamping barrel and the second clamping barrel, respectively, and

a hole for inserting a tapered jig member is formed on the fixture plate portion whereby the jig member is to be brought into press contact with the sheath portion to enter the sheath portion into the second clamping barrel, so that the braiding portion is pressed into the first clamping barrel.

2. An earthing plate according to claim **1**, wherein the first clamping barrel is formed by curling a first tongue piece extending from the end edge of the fixture plate portion.

3. An earthing plate according to claim **1**, wherein the second clamping barrel is formed by curling a second tongue piece extending from the end edge of the fixture plate portion.

4. An earthing plate according to claim **1**, wherein the hole for inserting a tapered jig member is located between the first clamping barrel and the second clamping barrel in a longitudinal direction of the coaxial cable.

5. An earthing plate according to claim **1**, wherein in order to mount two of the coaxial cables in parallel at a predetermined interval on the fixture plate portion,

a pair of the first clamping barrels, the second clamping barrel and the holes are symmetrically formed on the fixture plate portion.

6. A jig for mounting a coaxial cable on the earthing plate according to claim **1**, comprising:

a pressing jig member having a taper portion adapted to be brought into contact with the sheath portion and passed through the hole so as to gradually press the sheath portion into a deep part of the second clamping barrel when the taper portion proceeds further through the hole; and

a crimping jig member adapted to be brought into contact with the first clamping barrel and the second clamping barrel so as to clamp the braiding portion and the sheath portion by gradually clamping the braiding portion and the sheath portion with the first clamping barrel and the second clamping barrel as advancing in the same direction as the taper portion.

7. An earthing plate according to claim **1**, wherein a pair of the second clamping barrel are formed on opposite sides of the first clamping barrel in a longitudinal direction of the coaxial cable.

8. An earthing plate according to claim **7**, wherein a pair of holes for inserting a tapered jig member are formed on opposite sides of the first clamping barrel between the first clamping barrel and the second clamping barrels, respectively.

9. An earthing plate according to claim 1, further comprising a positioning line formed on the fixture plate as a mark which corresponds to a boundary between the braiding portion and the sheath portion in order to accurately position the braiding portion and the sheath portion at predetermined locations on the fixture plate before the braiding portion and the sheath portion are pressed into the first clamping barrel and the second clamping barrel, respectively.

10. An earthing plate according to claim 9, wherein two of the positioning lines are formed on the fixture plate so as to be substantially in parallel with the boundary, and

an interval between these two positioning lines is made longer than the length of the exposed braiding portion.

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